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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,216	11/08/2001	Li Yang	791 170	5554

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BURR & BROWN  
PO BOX 7068  
SYRACUSE, NY 13261-7068

EXAMINER
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TSANG FOSTER, SUSY N

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/009,216

Applicant(s)

YANG ET AL.

Examiner

Susy N Tsang-Foster.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 2-5, 10-16, and 20-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6-9, 17-19 and 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of the species 14 drawn to a compound having an organic base and an inorganic acid which are unitarily combined in a molecule in Paper No. 9 is acknowledged. The traversal is on the ground(s) that all of species 1-23 are sufficiently related and that search and examination of all species herein could be made without serious burden. This is not found persuasive because species 1-23 are not sufficiently related since they do not have a common property and a common structure under PCT Rule 13.2 and therefore do not related to a single general inventive concept under PCT Rule 13.1. As seen in the listing for species 1-23 in the previous election of species requirements, the compounds relating to each species are completely different from each other structurally and chemically.

According to MPEP 803.02, if members of the Markush group are so closely related that a search and examination of the entire claim can be made without serious burden, the Examiner must examine all the members of the Markush group in the claim on the merits. However, the same section of the MPEP states:

where two or more of the members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the claim obvious under 35 U.S.C. 103 with respect to the other member(s). In applications containing claims of that nature, the examiner may require a provisional election of a single species prior to examination on the merits. The provisional election will be given effect in the event that the Markush-type claim should be found not allowable. Following election, the Markush-type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. If the Markush-type claim is not allowable over the prior art, examination will be limited to the Markush-type claim

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and claims to the elected species, with claims drawn to species patentably distinct from the elected species held withdrawn from further consideration [emphasis added].

The 23 species listed are so unrelated and diverse that a search and examination of the entire claim can only be made with serious burden.

Furthermore, the JPO Search Report dated May 29, 2001 for the corresponding PCT application PCT/JP01/01135 of the present 371 National Stage application is of the same opinion as the Examiner regarding to the lack of unity of the species in claim 1. The JPO Search Report states that in claim 1 "the materials (a) to (i) have not the same or corresponding relationship with one another, there is no technical relationship among the above group of inventions involving a same or corresponding technical feature. Accordingly, a group of inventions described in claim 1 and inventions described in claim 2 to 28 which are defined by referring to claim 1 do not comply with the requirement of unity of invention."

The Examiner disagrees with applicant's assertion that species 18 drawn to "a compound containing an atom showing Lewis acidity and an atom showing Lewis basicity in one molecule molecularly-structurally" should be included in the present election of species 14 since both species 18 and species 14 are directed to a compound whose molecule comprises a base moiety and an acid moiety because species 18 is structurally different from species 14 which is drawn to a reaction product of an organic base and an inorganic acid. Species 18 is not drawn to a reaction product of an organic base and an inorganic acid as evidenced by page 25 of the specification which gives alumatrene tetramer as the only one example of species 18 which is not a reaction product of an organic base and an inorganic acid.

The requirement is still deemed proper and is therefore made FINAL.

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2. Claims 2-5, 10-16, and 20-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

***Information Disclosure Statement***

3. The information disclosure statements filed on 11/8/2001 and 2/7/2002 have been considered by the Examiner.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 6-9, 17-19, and 25-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compounds given by chemical formulas I-VI on pages 17-19 of the specification as the compound having an organic base and an inorganic acid which are unitarily combined in a molecule, does not reasonably provide enablement for all compounds having an organic base and an inorganic acid which are unitarily combined in a molecule. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

There are innumerable compounds that are organic bases and innumerable compounds or elements that are inorganic acids and the specification does not provide sufficient guidance to

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one of ordinary skill in the art as to which organic base and inorganic acid reaction product is encompassed by the claims there are an infinite number of possible combinations. It would be undue experimentation to one of ordinary skill in the art to determine what compound having an organic base and an inorganic acid which are unitarily combined in a molecule is encompassed by the claim from at least thousands, if not millions of possibilities. There are at least thousands, if not millions of organic base compounds. Furthermore, there are 51 inorganic acids listed in the website <http://ifs.massey.ac.nz/resources/chemistry/dissociation/inorgacids.htm>

(Dissociation Constants of Inorganic Acids [online]. Institute of Fundamental Sciences, Massey University. [retrieved on 2003-12-01]. Retrieved from the Internet: <URL:

<http://ifs.massey.ac.nz/resources/chemistry/dissociation/inorgacids.htm> >). There are 30

inorganic acids listed in the website <http://www.cem.msu.edu/~reusch/VirtualText/acidity.htm>

(Ionization Constants of Inorganic Acids [online]. Organic Chemistry Michigan State University.

[retrieved on 2003-12-01]. Retrieved from the Internet :

<<http://www.cem.msu.edu/~reusch/VirtualText/acidity.htm>>).

Therefore, there are thousands, if not millions, of compounds that can be obtained by the reaction product of an organic base and an inorganic acid.

Even if only two inorganic acids are claimed, there are still thousands, if not millions of combination with the organic base since there are thousands, if not millions of organic base compounds. There are also innumerable cyclic organic base compounds.

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***Conclusion***

Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (703) 305-0588. The examiner can normally be reached on Monday through Friday from 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (703) 308-2383. The phone number for the organization where this application or proceeding is assigned is (703) 305-5900.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

st/ 

Susy Tsang-Foster  
Primary Examiner  
Art Unit 1745